

THE INVENTOR CLAIMS:

1. A two-stroke engine, comprising:

2 a retro-tube connected with an exhaust exit port,

a plenum chamber communicating with the retro-tube,

4 a secondary air tube communicating with the plenum chamber,

and

6 an exhaust receiver tube communicating with the retro-tube,

the combined flow produced by exhaust inertia and kinetic energy

8 urging the exhaust to the end of the retro-tube,

upon the piston reaching the bottom of its stroke, the

10 exhaust and fresh air exit the retro-tube, then reverse direction
of flow to tube, whereupon they are slowed and their direction of

12 flow is reversed and they pass in reverse through the exhaust
outlet and into the cylinder and increase the air density in the

14 cylinder.

2. An engine according to Claim 1, wherein inertial inflow of fresh air and exhaust increases the pressure and density of air in the cylinder to provide a kinetic supercharging effect.

3. An engine according to Claim 1, wherein air is drawn into the cylinder with the piston stroke continuing to about 90° of rotation, and vacuum in the retro-tube drawing in clean air into the retro-tube.

4. An engine according to Claim 1, wherein the exhaust system cools the retro-tube and also cools the combustion chamber and the piston edge adjacent to the exhaust opening.

5. An engine according to Claim 1, wherein optimum volume of the retro-tube equals the total displacement volume of a piston stroke.